

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 14-16 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks as set forth below.

Title

The Examiner required a title that is indicative of the invention to which the claims are directed. By way of the present Amendment, Applicants have included a new title. Thus, this objection is overcome.

Abstract of the Disclosure

The Examiner objected to the abstract as not reflecting the elected method invention and also indicated a spelling error. By way of the present Amendment, Applicants have inserted a new abstract directed to the method, which avoids the spelling error.

Rejection under 35 USC 112

Claims 6-13 stand rejected under 35 USC 112, second paragraph. This rejection is respectfully traversed.

Applicants have cancelled these claims and added new claims 14-16. The new claims avoid these problems. Accordingly, this rejection is overcome.

In particular, the reference to the soft circuit board has been removed completely in claim 14. The Examiner also requested the materials which are being referred to as a multi-layer soft

and hard composite PCB. By way of the present Amendment, Applicants have inserted new claim 14 which describes the combined PCB as including a flexible PCB and a multi-layer rigid PCB. Thus, Applicants submit that this language is not indefinite. The Examiner also objected to the use of the term “formed on” in claim 7. This has now been removed. The Examiner also objected to the reference to two opposite chip packages in claim 10. This has also been removed. Accordingly, this rejection is believed to be overcome.

Rejection under 35 USC 102

Claims 6-13 stand rejected under 35 USC 102 as being anticipated by Fukuda et al., U.S. Patent 6,091,137. This rejection is respectfully traversed.

The Examiner cites Fukuda et al. as providing a PCB with a multi-layer substrate having a soft circuit composite. Applicants first submit that the teaching of Fukuda et al. is completely different from that of the present invention. In Fukuda et al., the chip connection terminal is formed partly of soft gold and partly of hard gold. Moreover, there is no teaching of the combined PCB as presently defined in claim 14. Also, the reference does not teach the steps of forming the pair of grooves, milling the portion of the rigid PCB to expose the flexible PCB, drilling through the PCB and forming breakable parts at the center. Applicants submit that Fukuda et al. does not show these steps in the method at all. Accordingly, Applicants submit that this rejection is overcome.

Rejection under 35 USC 103

Claims 9-13 stand rejected under 35 USC 103 as being obvious over Fukuda et al. in view of Ho, U.S. Patent 6,197,614. This rejection is respectfully traversed.

The Examiner admits that Fukuda et al. does not discuss the milling process to form grooves. The Examiner relies on Ho to teach such a process. Moreover, Applicants submit that, even if Ho does teach a process of Milling, it does not aid Fukuda et al. in teaching the steps of independent claim 14. Thus, even the combination of references does not teach the forming of a pair of grooves on the rigid PCB, milling a portion of the rigid PCB to expose the flexible PCB, drilling through the PCB and forming breakable parts at the center. Accordingly, Applicants submit that claim 14 is patentable over this combination of references as well.

New claim 15 has been added which includes limitations previously found in claim 9. In particular, this claim now recites that the grooves are formed by milling. This feature is not seen in the references utilized by the Examiner either. Claim 16 is a new claim which further describes the step of breaking the breakable parts to separate the chip package substrates. This is clearly not seen in either of the references.

Conclusion

In view of the above amendments and remarks, it is believed that the claims clearly distinguish over the patents relied upon by the Examiner, either alone or in combination. In view of this, reconsideration of the rejections and allowance of all the claims are respectfully requested.

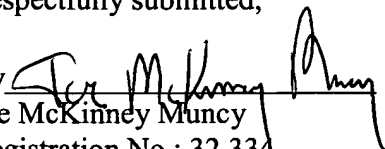
In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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